# SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

## **Engineering and Compliance**

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**Processed by** Todd Iwata

Checked by Date 2.14.2012

## APPLICATION PROCESSING AND CALCULATION

New Basis, Inc. 2626 Kansas Ave. Riverside, CA 92507 ID: 40806

# **EQUIPMENT DESCRIPTION**

A/N 530319 (Existing equip. w/o permit):

STORAGE SILO, NO. 1, CALCIUM CARBONATE/SAND, 12'-0" DIA. X 13'-8" H. (OVERALL), 6,204 GALLON CAPACITY.

A/N 530320 (Existing equip. w/o permit):

STORAGE SILO, NO. 2, CALCIUM CARBONATE/SAND, 12'-0" DIA. X 13'-8" H. (OVERALL), 6,204 GALLON CAPACITY.

A/N 530321 (Existing equip. w/o permit):

STORAGE SILO, NO. 3, CALCIUM CARBONATE/SAND, 12'-0" DIA. X 13'-8" H. (OVERALL), 6,204 GALLON CAPACITY.

A/N 530322 (Existing equip. w/o permit):

BAGHOUSE, MAC EQUIPMENT, MODEL NO. 2M2F4, FOUR 14" DIA. X 26" L. CARTRIDGE FILTERS, 1.06 SQ. FT. TOTAL FILTER AREA, WITH A MECHANICAL SHAKER, VENTING SILO NOS. 1, 2 AND 3.

A/N 530315

TITLE V PERMIT REVISION

# **CONDITIONS**

## A/N 530319, 530320 & 530321:

- 1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.

  [RULE 204]
- 2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
  [RULE 204]
- 3. THIS EQUIPMENT SHALL NOT BE OPERATED UNLESS IT IS ONLY VENTED TO AN AIR POLLUTION CONTROL EQUIPMENT, WHICH IS IN FULL USE, AND WHICH HAS BEEN ISSUED AN OPERATING PERMIT BY THE EXECUTIVE OFFICER.

  [RULE 1303(a)(1)-BACT]

#### PERIODIC MONITORING:

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4. THE OPERATOR SHALL CONDUCT AN INSPECTION FOR VISIBLE EMISSIONS FROM ALL STACKS AND OTHER EMISSION POINTS OF THIS EQUIPMENT WHENEVER THERE IS A PUBLIC COMPLAINT OF VISIBLE EMISSIONS, WHENEVER VISIBLE EMISSIONS ARE OBSERVED, AND ON AN ANNUAL BASIS, AT LEAST, UNLESS THE EQUIPMENT DID NOT OPERATE DURING THE ENTIRE ANNUAL PERIOD. THE ROUTINE ANNUAL INSPECTION SHALL BE CONDUCTED WHILE THE EQUIPMENT IS IN OPERATION AND DURING DAYLIGHT HOURS.

IF ANY VISIBLE EMISSIONS (NOT INCLUDING CONDENSED WATER VAPOR) ARE DETECTED THAT LAST MORE THAN THREE MINUTES IN ANY ONE-HOUR, THE OPERATOR SHALL VERIFY AND CERTIFY WITHIN 24 HOURS THAT THE EQUIPMENT CAUSING THE EMISSION AND ANY ASSOCIATED AIR POLLUTION CONTROL EQUIPMENT ARE OPERATING NORMALLY ACCORDING TO THEIR DESIGN AND STANDARD PROCEDURES AND UNDER THE SAME CONDITIONS UNDER WHICH COMPLIANCE WAS ACHIEVED IN THE PAST, AND EITHER:

- A. TAKE CORRECTIVE ACTION(S) THAT ELIMINATES THE VISIBLE EMISSIONS WITHIN 24 HOURS AND REPORT THE VISIBLE EMISSIONS AS A POTENTIAL DEVIATION IN ACCORDANCE WITH THE REPORTING REQUIREMENTS IN SECTION K OF THIS PERMIT; OR
- B. HAVE A CARB-CERTIFIED SMOKE READER DETERMINE COMPLIANCE WITH THE OPACITY STANDARD, USING EPA METHOD 9 OR THE PROCEDURES IN THE CARB MANUAL "VISIBLE EMISSION EVALUATION", WITHIN THREE BUSINESS DAYS AND REPORT ANY DEVIATIONS TO AQMD.

THE OPERATOR SHALL KEEP THE RECORDS IN ACCORDANCE WITH THE RECORDKEEPING REQUIREMENTS IN SECTION K OF THIS PERMIT AND THE FOLLOWING RECORDS:

- A. STACK OR EMISSION POINT IDENTIFICATION;
- B. DESCRIPTION OF ANY CORRECTIVE ACTIONS TAKEN TO ABATE VISIBLE EMISSIONS;
- C. DATE AND TIME VISIBLE EMISSION WAS ABATED; AND
- D. VISIBLE EMISSION OBSERVATION RECORDED BY A CERTIFIED SMOKE READER. [RULE 3004 (a)(4)]

#### **EMISSIONS AND REQUIREMENTS:**

5. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:

PM: RULE 405, SEE APPENDIX B FOR EMISSION LIMITS

## **A/N 530322 (Baghouse):**

- 1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.

  [RULE 204]
- 2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
  [RULE 204]

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- 3. A MECHANICAL GAUGE SHALL BE INSTALLED SO AS TO INDICATE, IN INCHES WATER COLUMN, THE STATIC PRESSURE DIFFERENTIAL ACROSS THE BAGS.
  [RULE 1303(A)(1)-BACT]
- 4. DUST COLLECTED IN THE BAGHOUSE SHALL BE DISCHARGED ONLY INTO CLOSED CONTAINERS.
  [RULE 1303(A)(1)-BACT]

## **PERIODIC MONITORING:**

- THE OPERATOR SHALL PERFORM AN ANNUAL INSPECTION OF THE EQUIPMENT AND FILTER MEDIA FOR LEAKS, BROKEN OR TORN FILTER MEDIA AND IMPROPERLY INSTALLED FILTER MEDIA. THE OPERATOR SHALL KEEP RECORDS, IN A MANNER APPROVED BY THE DISTRICT, FOR THE FOLLOWING PARAMETER(S) OR ITEM(S):
  - A. THE NAME OF THE PERSON PERFORMING THE INSPECTION AND/OR MAINTENANCE OF THE FILTER MEDIA;
  - B. THE DATE, TIME AND RESULTS OF THE INSPECTION; AND
  - C. THE DATE, TIME AND DESCRIPTION OF ANY MAINTENANCE OR REPAIRS RESULTING FROM THE INSPECTION.

    [RULE 3004 (a)(4)]
- 6. THE OPERATOR SHALL CONDUCT AN INSPECTION FOR VISIBLE EMISSIONS FROM ALL STACKS AND OTHER EMISSION POINTS OF THIS EQUIPMENT WHENEVER THERE IS A PUBLIC COMPLAINT OF VISIBLE EMISSIONS, WHENEVER VISIBLE EMISSIONS ARE OBSERVED, AND ON AN ANNUAL BASIS, AT LEAST, UNLESS THE EQUIPMENT DID NOT OPERATE DURING THE ENTIRE ANNUAL PERIOD. THE ROUTINE ANNUAL INSPECTION SHALL BE CONDUCTED WHILE THE EQUIPMENT IS IN OPERATION AND DURING DAYLIGHT HOURS. IF ANY VISIBLE EMISSIONS (NOT INCLUDING CONDENSED WATER VAPOR) ARE DETECTED, THE OPERATOR SHALL TAKE CORRECTIVE ACTION(S) THAT ELIMINATES THE VISIBLE EMISSIONS WITHIN 24 HOURS AND REPORT THE VISIBLE EMISSIONS AS A POTENTIAL DEVIATION IN ACCORDANCE WITH THE REPORTING REQUIREMENTS IN SECTION K OF THIS PERMIT.

THE OPERATOR SHALL KEEP THE RECORDS IN ACCORDANCE WITH THE RECORDKEEPING REQUIREMENTS IN SECTION K OF THIS PERMIT AND THE FOLLOWING RECORDS:

- A. STACK OR EMISSION POINT IDENTIFICATION:
- B. DESCRIPTION OF ANY CORRECTIVE ACTIONS TAKEN TO ABATE VISIBLE EMISSIONS; AND
- C. DATE AND TIME VISIBLE EMISSION WAS ABATED. [RULE 3004 (a)(4)]

#### **EMISSIONS AND REQUIREMENTS:**

7. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:

PM: RULE 405, SEE APPENDIX B FOR EMISSION LIMITS

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# **BACKGROUND**

New Basis submitted applications to permit three existing storage silos and one baghouse. The silos are used to store/dispense calcium carbonate or sand. The silos are filled by a pump truck which pneumatically conveys the material through a pipe at the top of the silo. Filling takes up to 3 hr/day and is performed up to 2 days/wk and 50 wks/yr. All three silos vent to the baghouse to control PM10 emissions. (These silos are in addition to three existing silos that are permitted under P/O G12964, G12965 and G12966.)

# PROCESS DESCRIPTION

New Basis manufactures polymer concrete-casted underground enclosures that are used to house telephone cables, power cables, TV cables and water/turf/irrigation piping and valves. New Basis operates a variety of equipment including six spray booths, one located within a permanent total enclosure vented to an air pollution control system, mixers, auto casters, resin storage tanks, silos and baghouses. New Basis operates under a facility-wide VOC emission cap of 5,133 lb/month.

# **EMISSION ESTIMATES**

The material throughput for the silos are approximately the same as the three permitted silos, up to 850,000 lb/month of calcium carbonate and up to 1,300,000 lb/month of sand. PM10 emissions are estimated using an AP-42 emission factor of 2 lb PM/ton of material. PM10 emissions are assumed to be 50% of PM emissions.

Emission factor (AP-42 Pigment Mixing) = 2 lb PM/ton of material Control efficiency = 99%

Maximum material throughput (sand) = 1,300,000 lb/mon (21.7 ton/day)

Uncontrolled daily PM10 emissions = 21.7 ton/day x 2 lb/ton x 0.5 = 21.7 lb/day/silo Uncontrolled hourly PM10 emissions = 21.7 lb/day  $\div$  3 hr/day = 7.23 lb/hr/silo Controlled daily PM10 emissions = 21.7 lb/day x (1 - 0.99) = 0.22 lb/day/silo Controlled hourly PM10 emissions = 0.22 lb/day  $\div$  3 hr/day = 0.072 lb/hr/silo

# **RULE ANALYSIS**

RULE 212 (c)(1): This section requires a public notice for all new or modified permit units that emit air contaminants located within 1,000 feet from the outer boundary of a school. The facility is not located within 1,000 feet of the outer boundary of a school. The closest school located to the facility is over 0.7 miles away.

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RULE 212 (c)(2): This section requires a public notice for all new or modified facilities that have on-site emission increases exceeding any of the daily maximums as specified by Rule 212(g). The emission increases are both below the limits specified in Rule 212(g).

RULE 212(g): This section requires a public notice for all new or modified sources that result in emission increases exceeding any of the daily maximums as specified by Rule 212(g). The increase will not exceed these limits.

	Maximum Daily Emissions							
	ROG		ROG NO <sub>x</sub>		PM <sub>10</sub>	SO <sub>2</sub>	CO	Pb
Emission increase	0	0	0.66	0	0	0		
MAX Limit (lb/day)	30	40	30	60	220	3		
Compliance Status	Yes	Yes	Yes	Yes	Yes	Yes		

RULE 212(c)(3): This section requires a public notice for all new or modified permit units with increases in emissions of toxic air contaminants listed in Table I of Rule 1401 resulting in a cancer risk equal or greater than one in a million. There are no cancerous TACs emitted from the silos and baghouse.

RULES 401 & 402: AQMD database has no records of visible emissions or nuisance complaints against this facility within the last five years. Compliance with these requirements is expected with the proper operation of the equipment.

RULE 405: The silos will be operated in compliance with the discharged rates of this rule. PM10 emissions from the silos are a maximum of 0.072 lb/hr, far below the limits.

## RULE 1303:

- (a): PM10 emissions from the silos are effectively controlled by the baghouses. BACT is achieved for the silos.
- (b)(1): Modeling for the baghouses is not required since emissions are less than the 0.41 lb/hr limit.
- (b)(2): Emission offsets are not required.
- (b)(4): The facility is expected to be in full compliance with all applicable rules and regulations of the District.
- RULE 1401: There are no toxic air contaminants emitted from the silos and baghouses.

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# **REGULATION XXX:**

This facility is not in the RECLAIM program. The proposed project is considered as a "de minimis significant permit revision" to the Title V permit for this facility.

Rule 3000(b)(6) defines a "de minimis significant permit revision" as any Title V permit revision where the cumulative emission increases of non-RECLAIM pollutants or hazardous air pollutants (HAPs) from these permit revisions during the term of the permit are not greater than any of the following emission threshold levels:

Air Contaminant	Daily Maximum (lbs/day)
HAP	30
VOC	30
NOx	40
PM10	30
SOx	60
CO	220

To determine if a project is considered as a "de minimis significant permit revision" for non-RECLAIM pollutants or HAPs, emission increases for non-RECLAIM pollutants or HAPs resulting from all permit revisions that are made after the issuance of the Title V renewal permit shall be accumulated and compared to the above threshold levels. This proposed project is the first permit revision to the Title V renewal permit issued to this facility on November 29, 2011. The following table summarizes the cumulative emission increases resulting from all permit revisions since the Title V renewal permit was issued:

Revision	HAP	VOC	NOx	PM <sub>10</sub>	SOx	CO
1 <sup>st</sup> Permit Revision: Add three silos and one baghouse	0	0	0	0.66	0	0
Net Emission Total	0	0	0	0.66	0	0
Maximum Daily	30	30	40	30	60	220

# **RECOMMENDATION:**

The proposed project is expected to comply with all applicable District Rules and Regulations. Since the proposed project is considered as a "de minimis significant permit revision", it is exempt from the public participation requirements under Rule 3006 (b). A proposed permit incorporating this permit revision will be submitted to EPA for a 45-day review pursuant to Rule 3003(j). If EPA does not raise any objections within the review period, a revised Title V permit will be issued to this facility.